P
Techn
B

No. 40—1908.

British Engineering Standards Association.

(*Incorporated 1918.*)

FORMED IN 1901 AS THE ENGINEERING STANDARDS COMMITTEE
BY
THE INSTITUTION OF CIVIL ENGINEERS.
THE INSTITUTION OF MECHANICAL ENGINEERS.
THE INSTITUTION OF NAVAL ARCHITECTS.
THE IRON AND STEEL INSTITUTE.
THE INSTITUTION OF ELECTRICAL ENGINEERS.

UNIVERSITY OF TORONTO
MAY 19 1920
LIBRARY

BRITISH STANDARD SPECIFICATION FOR CAST IRON SPIGOT AND SOCKET LOW PRESSURE HEATING PIPES.

LONDON:
PUBLISHED FOR THE ASSOCIATION BY CROSBY LOCKWOOD & SON,
7, STATIONERS' HALL COURT, LUDGATE HILL, E.C. 4; AND 5, BROADWAY, WESTMINSTER, S.W. 1;
AND TO BE PURCHASED FROM ANY BOOKSELLER, OR DIRECT FROM THE OFFICES OF THE ASSOCIATION,
28, VICTORIA STREET, WESTMINSTER, S.W. 1.

June, 1918.

COPYRIGHT. ALL RIGHTS RESERVED.

Price 1/- Net.

No. 40—1908.

British Engineering Standards Association.

(*Incorporated 1918.*)

FORMED IN 1901 AS THE ENGINEERING STANDARDS COMMITTEE
BY
THE INSTITUTION OF CIVIL ENGINEERS.
THE INSTITUTION OF MECHANICAL ENGINEERS.
THE INSTITUTION OF NAVAL ARCHITECTS.
THE IRON AND STEEL INSTITUTE.
THE INSTITUTION OF ELECTRICAL ENGINEERS.

BRITISH
STANDARD SPECIFICATION
FOR
CAST IRON
SPIGOT AND SOCKET
LOW PRESSURE
HEATING PIPES.

LONDON:
PUBLISHED FOR THE ASSOCIATION BY CROSBY LOCKWOOD & SON,
7, STATIONERS' HALL COURT, LUDGATE HILL, E.C. 4; AND 5, BROADWAY, WESTMINSTER, S.W. 1;
AND TO BE PURCHASED FROM ANY BOOKSELLER, OR DIRECT FROM THE OFFICES OF THE ASSOCIATION,
28, VICTORIA STREET, WESTMINSTER, S.W. 1.

June, 1918.

COPYRIGHT. ALL RIGHTS RESERVED.

Price 1/- Net.

CONTENTS.

PAGE

List of Members of Main Committee 3
List of Members of Sectional Committee on Cast Iron Pipes 4
List of Members of Sub-Committee on Cast Iron Pipes for Heating, Ventilating and House Drainage 4
Preface 5

SPECIFICATION: TABLE OF CLAUSES.

1. Pipes and Fittings 7
2. Quality of Material 7
3. Mode of Casting 7
4. Freedom from Defects 7
5. Length and Weight 7
6. Marking 8
7. Hydraulic Test 8
8. Inspection... 8
9. Testing Facilities 8

TABLES, ETC.

Dimensions and Minimum Weights of British Standard Low Pressure Heating Pipes 11
Full Size Sections of British Standard Low Pressure Heating Pipes 12–15
Dimensions of British Standard Hot Water Fittings... ... 16

BRITISH ENGINEERING STANDARDS ASSOCIATION.

MAIN COMMITTEE.

† SIR ARCHIBALD DENNY, BART. (*Chairman*).

SIR MAURICE FITZMAURICE, C.M.G. (*Vice-Chairman*).

SIR WILLIAM MATTHEWS, K.C.M.G. ...	Nominated by the Institution of Civil Engineers.
SIR DOUGLAS FOX	
MR. R. ELLIOTT-COOPER	
MR. ALEXANDER ROSS	
DR. W. C. UNWIN	
MR. H. A. IVATT	Nominated by the Institution of Mechanical Engineers.
MR. MICHAEL LONGRIDGE...	
DR. WILLIAM H. MAW	
MR. G. AINSWORTH...	Nominated by the Iron and Steel Institute.
DR. ARTHUR COOPER	
MR. ILLTYD WILLIAMS	
SIR THOMAS BELL, K.B.E....	Nominated by the Institution of Naval Architects.
SIR WILLIAM SMITH, C.B.	
COL. R. E. CROMPTON, C.B.	Nominated by the Institution of Electrical Engineers.
SIR JOHN SNELL	
MR. C. P. SPARKS	
MR. F. R. DAVENPORT	Co-opted by the nominated members to represent the Federation of British Industries.
MR. F. W. GILBERTSON	
HON. SIR CHARLES PARSONS, K.C.B. ...	Co-opted by the nominated members.
SIR ROBERT HADFIELD, BART.	
SIR RICHARD GLAZEBROOK, C.B.... ...	

DR. J. H. T. TUDSBERY (*Hon. Secretary*).

MR. C. LE MAISTRE (*Secretary*).

MR. CHARLES DRESSER (*Assistant Secretary*).

† Succeeded the late SIR JOHN WOLFE BARRY, K.C.B., February, 1918.

BRITISH ENGINEERING STANDARDS ASSOCIATION.

The following are lists of Members of the Sectional Committee on Cast Iron Pipes and of the Sub-Committee on Cast Iron Pipes for Heating, Ventilating and House Drainage which was entrusted with the drafting of the Standard Specification and Sections of Cast Iron Spigot and Socket Low Pressure Heating Pipes.

SECTIONAL COMMITTEE ON CAST IRON PIPES.

September, 1908.

Chairman, † MR. CHARLES HAWKSLEY.

India Office, Mr. W. E. Phelps.

Crown Agents for the Colonies, † Mr. Osbert Chadwick, C.M.G.

General Post Office, Mr. Martin Roberts.

Institution of Gas Engineers, Mr. C. S. Carpenter; Mr. Charles Hunt.

Incorporated Association of Municipal and County Engineers, Mr. F. Griffiths; Mr. W. Watts.

British Association of Waterworks Engineers, Mr. F. Bancroft; Mr. W. Matthews; Mr. P. H. Palmer.

Institution of Heating and Ventilating Engineers, Mr. Louis F. Pearson.

Cast Iron Pipe Founders' Association of Great Britain, Mr. C. H. Bowser; Mr. F. Chambers; Mr. J. Cochrane; Mr. H. Westlake.

† Mr. William B. Bryan; Mr. Colin Docwra; † Mr. E. B. Ellington; *Mr. Basil P. Ellis; Mr. W. E. Gray; Mr. George H. Hill; Mr. Ernest Mansbergh; † Mr. Henry Rofe; Mr. G. Watson.

* Deceased, October, 1907.

† Since deceased.

SUB-COMMITTEE ON CAST IRON PIPES FOR HEATING, VENTILATING AND HOUSE DRAINAGE.

Chairman, MR. LOUIS F. PEARSON.

Royal Institute of British Architects, Mr. F. T. Reade.

London County Council, Mr. F. S. Capon; Mr. J. E. Worth.

Royal Sanitary Institute, Mr. Edwin T. Hall.

Mr. John Cameron (*Cameron & Roberton, Ltd.*); Mr. C. W. Dawson (*Newton, Chambers & Co., Ltd.*); Mr. W. Jones (*Jones & Attwood*); Mr. Charles Mason (*Foster & Pearson, Ltd.*); Mr. J. Nelson Russell (*Rosser & Russell, Ltd.*); Mr. A. K. Steven (*McDowall, Steven & Co., Ltd.*); Mr. W. McLauchlan (*Walter Macfarlane & Co.*)

PREFACE.

The Sectional Committee on Cast Iron Pipes, under the Chairmanship of Mr. Charles Hawksley, was appointed by the Main Committee on October 23rd, 1903, and at their first meeting held on March 29th, 1904, the following Sub-Committees were formed:—

Name.	*Chairman.*
Cast Iron Pipes for Water, Gas, Electrical and Sewerage Mains.	Mr. H. Rofe.
Cast Iron Pipes for Hydraulic Power Purposes.	Mr. E. B. Ellington.
Cast Iron Pipes for Heating, Ventilating and House Drainage.	Mr. Louis F. Pearson.

A number of meetings of the Sub-Committee on Cast Iron Pipes for Heating, Ventilating and House Drainage have been held, and the particulars of Low Pressure Heating Pipes, which were courteously placed at the disposal of the Sub-Committee by the principal manufacturers, have been carefully considered.

In presenting the annexed Specification and Sections of Cast Iron Spigot and Socket Low Pressure Heating Pipes the Sub-Committee desire to call attention to the following points:—

In drawing up the weights of pipes and depths of sockets they have endeavoured, as far as possible, to work between the heavy pipes and deep sockets specified by some Public Bodies and the light pipes and short sockets now in use in many districts. The Sub-Committee are of opinion that with the depths of sockets and the weights recommended the Standard Pipes will not be too heavy to be used for ordinary contracts, and at the same time will be thoroughly sound and reliable.

The Sub-Committee are unanimously of opinion that the internal diameters of all pipes and fittings should be the same size as the nominal or commercial sizes. The internal diameters of pipes of the same nominal size which are being used at the present time vary in some cases considerably, and the Sub-Committee consider such variation, both from technical and commercial points of view, to be extremely undesirable.

With regard to the Standard lengths of Heating Pipes recommended, the attention of the Sub-Committee has been drawn to the question of making the standard length the length as laid. While unanimously in agreement with the principle, they desire to point out that it is the general custom in the case of Heating Pipes to make the nominal length include the socket. In view of this fact

they feel that any recommendation with regard to a change in this practice would greatly retard, if it did not entirely prevent, the adoption of the Standards.

The Sub-Committee further desire to point out that as these pipes are always sold by length, it has not been deemed necessary to specify a maximum limit of weight, a minimum limit only being required.

The Report in its present form was adopted by the Sectional Committee on Cast Iron Pipes at their meeting held on June 30th, 1908.

The Report was approved by the Main Committee at their meeting held on July 23rd, 1908.

Note.—*The Association desires to call attention to the fact that this Specification is intended to include the technical provisions necessary for the supply of material herein referred to, but does not purport to include all the necessary provisions of a Contract.*

BRITISH STANDARD SPECIFICATION FOR CAST IRON SPIGOT AND SOCKET LOW PRESSURE HEATING PIPES.

Pipes and Fittings.

1. The Pipes and Fittings shall conform in every respect to this Specification and to the Schedule and Drawings hereunto annexed. The astragals and beads shall be placed as shown on the drawings, and the sockets of all Fittings shall conform to the dimensions shown in the Table for the straight Pipes. The internal diameter or bore shall in no case be less than the nominal diameter. The Fittings shall be of the same thickness and relative weights as the Straight Pipes.

Quality of Material.

2. The Pipes and Fittings shall be made from re-melted iron, and the metal shall be dark grey on fracture.

Mode of Casting.

3. The Pipes may be cast horizontally.

Freedom from Defects.

4. The Pipes and Fittings shall be true and cylindrical, their inner and outer surfaces being as nearly as may be concentric. They shall be in all respects sound and good castings, free from laps or other imperfections, and shall be neatly dressed and carefully fettled.

Length and Weight.

5. The Straight Pipes shall be made in the following lengths which are inclusive of the depth of the Socket,

2 ins. internal diameter . . 3 ft. and 6 ft. lengths.
3 ins. internal diameter and over . 3 ft., 6 ft. and 9 ft. lengths.

The Pipes dealt with in this Specification shall be of not less weight than that specified in the Schedule. The weight shall be worked to in preference to the external diameter which is given approximately to the nearest $\frac{1}{32}$ in.

Marking.

6. Every Pipe and Fitting shall have cast upon it in a legible manner a figure indicating the internal diameter, and also Class Letters "S.H."* to indicate the purpose for which the Pipe or Fitting is made, and that it purports to have been manufactured in accordance with the British Standard Specification. In addition to the Class Letters each Pipe or Fitting shall bear the initials or trade mark of the Manufacturer, and the year of manufacture, *e.g.* 4 S.H. X & Co., '08.

Hydraulic Test.

7. All sizes of low pressure heating Pipes and Fittings shall be tested by an internal hydraulic pressure of 100 lbs. per square inch, and they shall withstand such pressure without showing any leakage, sweating, or defect of any kind. The pressure shall be maintained for at least 2 minutes. Care shall be taken that all air is extracted before the test is commenced.

While under this pressure each Pipe and Fitting shall be struck all over with a hand hammer weighing $\frac{1}{4}$ pound.

Inspection.

8. The representative of the Engineer (or of the Architect) shall have free access to the works of the Manufacturer at all reasonable times; he shall be at liberty to inspect the manufacture at any stage and to reject any material, finished Pipe or Fitting that does not conform to the terms of this Specification.

Testing Facilities.

9. The Manufacturer shall, at his own cost, supply labour and appliances for such testing as may be carried out on his premises.

---

* Standard Heating.

(1)

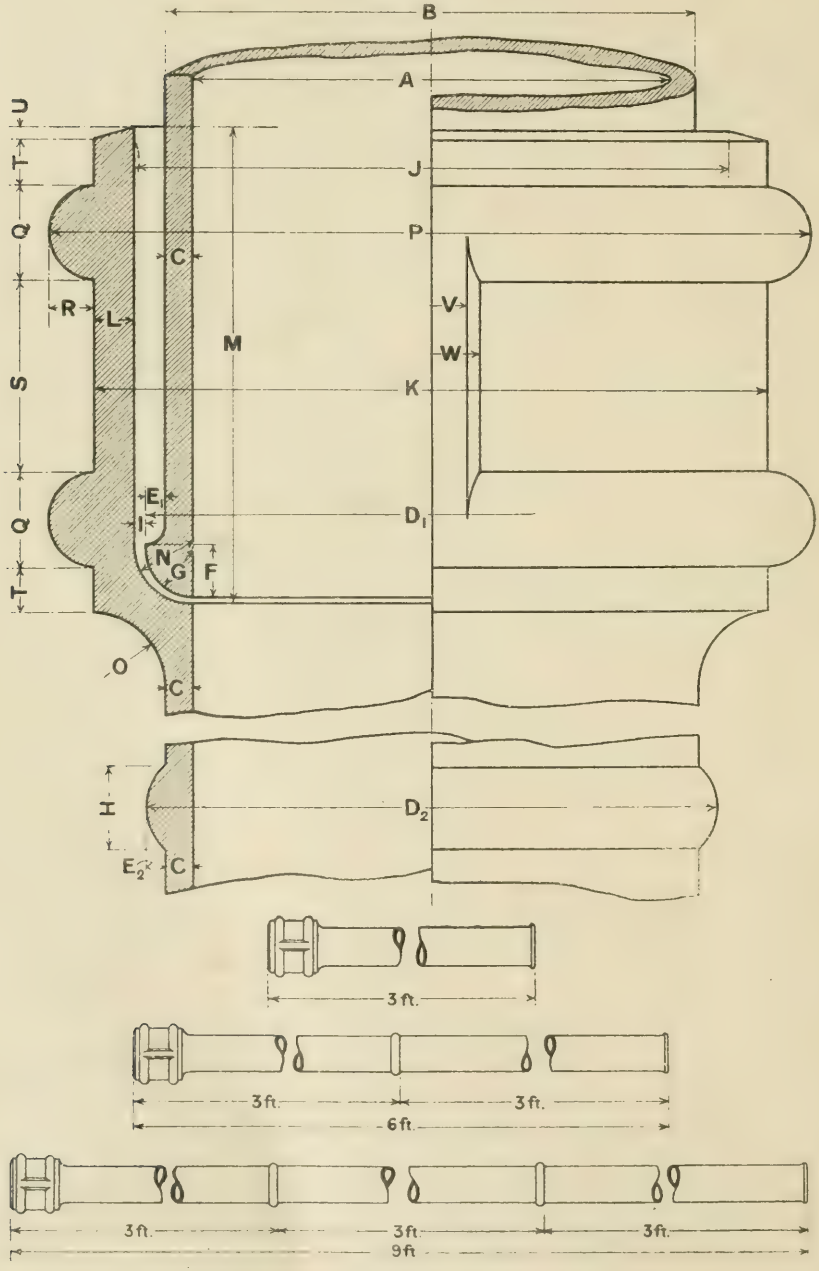
BRITISH STANDARD

LOW PRESSURE HEATING PIPES.

SCHEDULE OF DIMENSIONS AND WEIGHTS.

BRITISH STANDARD LOW PRESSURE HEATING PIPES.

Key Plan.



BRITISH STANDARD LOW PRESSURE HEATING PIPES.
For Working Pressures up to 100 feet head.

	DIMENSIONS OF PIPES.									
PIPE.	INTERNAL DIAMETER.	A	ins. 2	ins. 3	ins. 4	ins. 5	ins. 6	ins. 7	ins. 8	ins. 9
	Approximate External Diameter	B	2 3/8	3 7/16	4 15/32	5 9/16	6 5/8	7 11/16	8 3/4	9 13/16
	Approximate Thickness	C	3/16	7/32	15/64	9/32	5/16	11/32	3/8	13/32
	Diameter of Spigot Bead and Astragal	D_1 D_2	2 5/8	3 3/4	4 25/32	5 15/16	7	8 1/8	9 3/16	10 5/16
	Projection of Spigot Bead and Astragal	E_1 E_2	1/8	5/32	5/32	3/16	3/16	7/32	7/32	1/4
	Width of Spigot Bead	F	5/16	3/8	7/16	1/2	1/2	9/16	5/8	1 1/16
	Radius of Spigot Bead	G	5/16	3/8	25/64	17/32	1/2	9/16	19/32	21/32
	Width of Astragal	H	9/16	5/8	11/16	3/4	3/4	3/4	7/8	7/8
Clearance		I	1/8	3/32	7/64	1/8	1/8	1/8	5/32	5/32
Caulking Space		E_1 + I	1/4	1/4	17/64	5/16	5/16	11/32	3/8	13/32
SOCKET.	Internal Diameter	J	2 7/8	3 15/16	5	6 3/16	7 1/4	8 3/8	9 1/2	10 5/8
	External Diameter	K	3 7/16	4 9/16	5 21/32	6 15/16	8 1/16	9 1/4	10 7/16	11 5/8
	Thickness	L	9/32	5/16	21/64	3/8	13/32	7/16	15/32	1/2
	Internal Depth	M	3	3 1/2	4	4	4 1/2	4 1/2	5	5
	Internal Radius	N	7/16	15/32	1/2	19/32	5/8	11/16	3/4	13/16
	External Radius	O	9/16	9/16	5/8	11/16	3/4	3/4	7/8	15/16
	Diameter of Beads	P	3 15/16	5 1/4	6 13/32	7 11/16	8 15/16	10 1/8	11 7/16	12 5/8
	Width of Beads	Q	9/16	25/32	13/16	7/8	1	1	1 1/8	1 1/8
	Projection of Beads	R	1/4	11/32	3/8	3/8	7/16	7/16	1/2	1/2
	Distance between Beads	S	1 3/8	1 7/16	1 19/32	1 15/32	1 11/16	1 3/4	1 15/16	1 13/16
	Distance of Bead from edge	T	1/4	1/4	3/8	3/8	3/8	3/8	3/8	7/16
	Taper on end	U	1/16	1/16	3/32	3/32	3/32	3/32	1/8	1/8
	Width of Rest at Top	V	7/16	21/32	5/8	11/16	3/4	3/4	7/8	7/8
	Width of Rest at Bottom	W	9/16	25/32	13/16	7/8	1	1	1 1/8	1 1/8

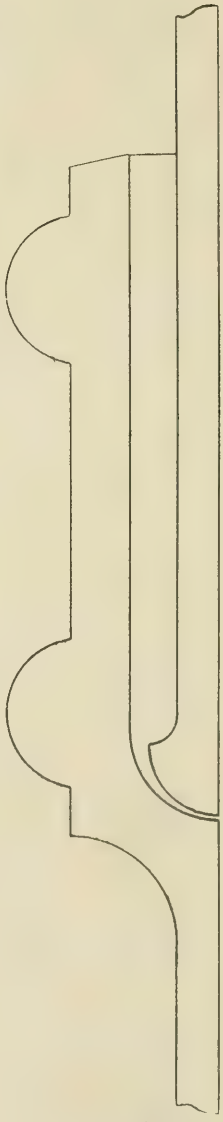
MINIMUM WEIGHTS OF PIPES.

OVERALL LENGTH. Feet	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
3	15	24	32	50	67	86	108	130
6	27	45	61	94	125	160	201	243
9	—	66	90	138	182	234	294	356

BRITISH STANDARD LOW PRESSURE HEATING PIPES.

FULL SIZE SECTIONS.

2-in. Pipe.



3-in. Pipe.

BRITISH STANDARD LOW PRESSURE HEATING PIPES.

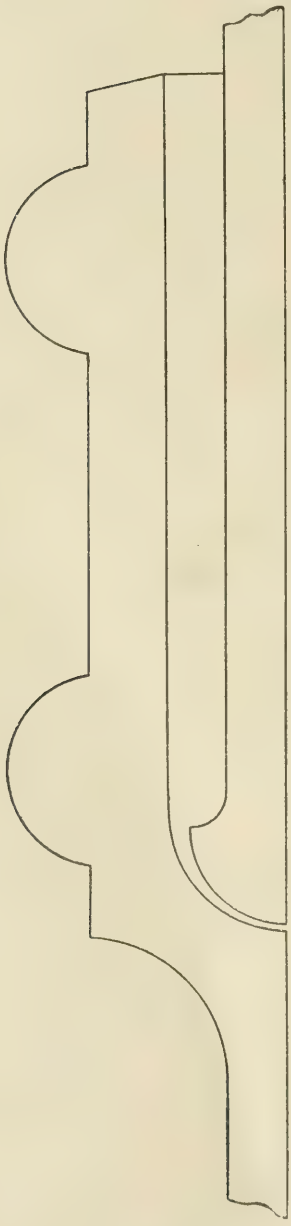
FULL SIZE SECTIONS.

4-in. Pipe.

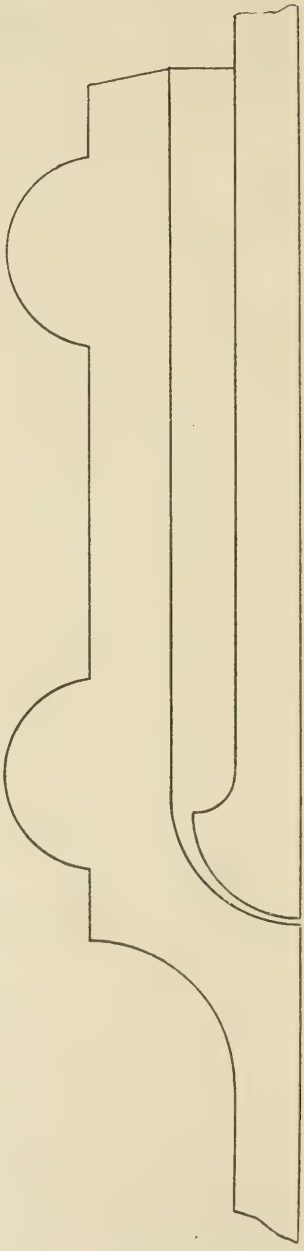
5-in. Pipe.

BRITISH STANDARD LOW PRESSURE HEATING PIPES.

FULL SIZE SECTIONS.



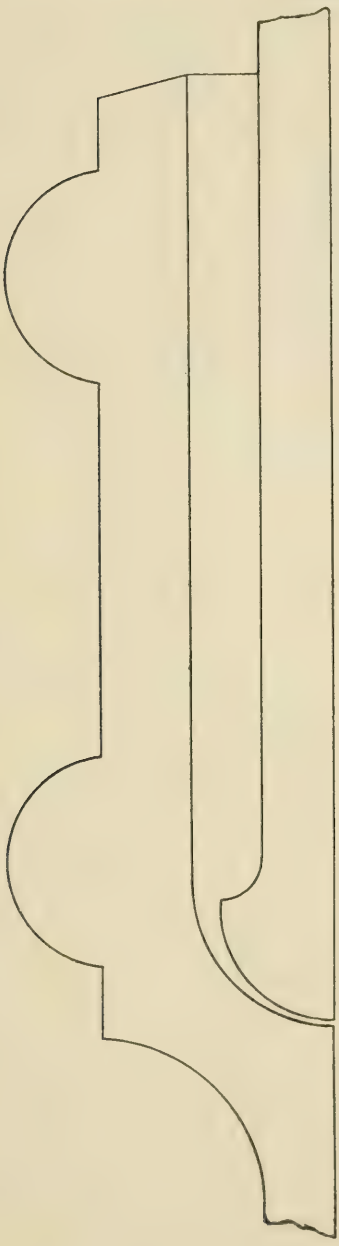
6-in. Pipe.



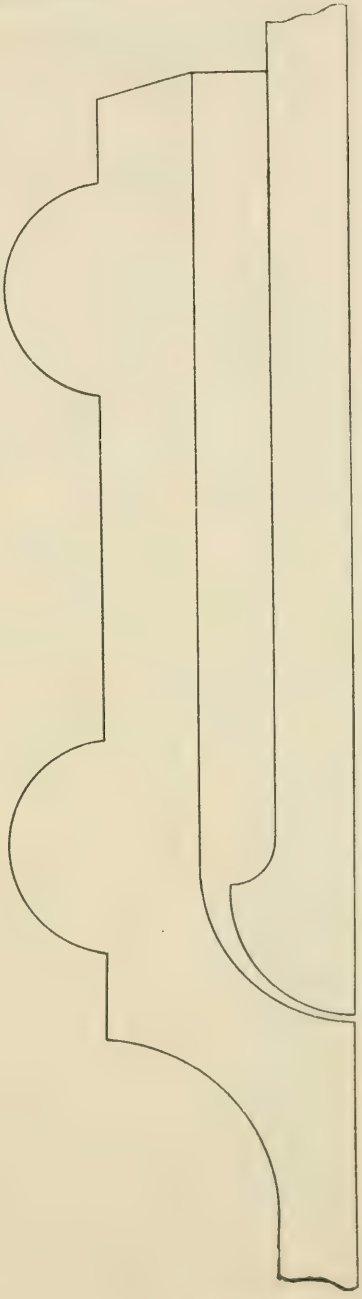
7-in. Pipe.

BRITISH STANDARD LOW PRESSURE HEATING PIPES.

FULL SIZE SECTIONS.



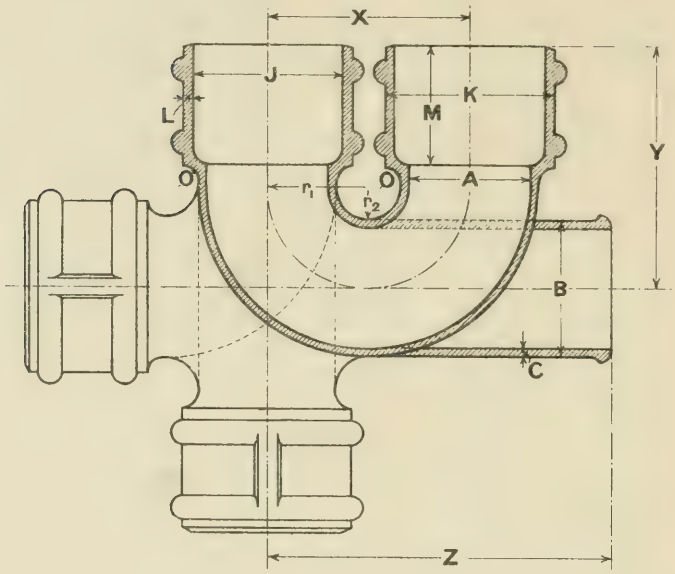
8-in. Pipe.



9-in. Pipe.

BRITISH STANDARD HOT WATER FITTINGS.

For Working Pressures up to 100 feet head.



DIMENSIONS OF FITTINGS.

INTERNAL DIAMETER.		ins. 2	ins. 3	ins. 4	ins. 5	ins. 6	ins. 7	ins. 8	ins. 9
Approximate External Diameter of Pipe	B	$2\frac{3}{8}$	$3\frac{7}{16}$	$4\frac{15}{32}$	$5\frac{9}{16}$	$6\frac{5}{8}$	$7\frac{11}{16}$	$8\frac{3}{4}$	$9\frac{13}{16}$
Approximate Thickness of Pipe	C	$\frac{3}{16}$	$\frac{7}{32}$	$\frac{15}{64}$	$\frac{9}{32}$	$\frac{5}{16}$	$\frac{11}{32}$	$\frac{3}{8}$	$\frac{13}{32}$
Internal Diameter of Socket	J	$2\frac{3}{8}$	$3\frac{15}{16}$	5	$6\frac{3}{16}$	$7\frac{1}{4}$	$8\frac{3}{8}$	$9\frac{1}{2}$	$10\frac{5}{8}$
External Diameter of Socket	K	$3\frac{7}{16}$	$4\frac{9}{16}$	$5\frac{21}{32}$	$6\frac{15}{16}$	$8\frac{1}{16}$	$9\frac{1}{4}$	$10\frac{5}{16}$	$11\frac{5}{8}$
Thickness of Socket.	L	$\frac{9}{32}$	$\frac{5}{16}$	$\frac{21}{64}$	$\frac{3}{8}$	$\frac{13}{32}$	$\frac{7}{16}$	$\frac{15}{32}$	$\frac{1}{2}$
Internal Depth of Socket	M	3	$3\frac{1}{2}$	4	4	$4\frac{1}{2}$	$4\frac{1}{2}$	5	5
External Radius of Socket	O	$\frac{9}{16}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{7}{8}$	$\frac{15}{16}$
Centres of Sockets	X	$4\frac{1}{8}$	$5\frac{1}{2}$	$6\frac{3}{4}$	8	$9\frac{1}{4}$	$10\frac{1}{2}$	12	$13\frac{1}{2}$
End of Socket to Centre Line of Spigot	Y	$5\frac{3}{4}$	$6\frac{13}{16}$	$8\frac{1}{8}$	$8\frac{3}{4}$	$9\frac{7}{8}$	$10\frac{5}{8}$	$11\frac{15}{16}$	$12\frac{3}{4}$
Length of Spigot	Z	9	10	$11\frac{1}{2}$	13	$14\frac{1}{2}$	16	$17\frac{1}{2}$	19
Radius of Centre Line of Bend	r_1	$2\frac{1}{16}$	$2\frac{3}{4}$	$3\frac{3}{8}$	4	$4\frac{5}{8}$	$5\frac{1}{4}$	6	$6\frac{3}{4}$
Internal Radius of Bend	r_2	$\frac{3}{8}$	$1\frac{1}{32}$	$1\frac{9}{64}$	$1\frac{7}{32}$	$1\frac{5}{16}$	$1\frac{13}{32}$	$1\frac{5}{8}$	$1\frac{25}{32}$

Sockets of fittings to be the same as for Straight Pipes of corresponding bore.

British Engineering Standards Association.

PRICE LIST

OF

BRITISH STANDARD SPECIFICATIONS AND REPORTS.

MARCH, 1919.

(This List cancels all previous Lists.)

NOTE.—*A number of the Publications of the Association are being issued in French, Italian, Spanish and Portuguese. The majority of the English Editions and all the Foreign Translations (which also include the English text) are being published in octavo form, and will be available at 1/- net per copy or its equivalent in Foreign moneys.*

Report No.		Net.	Post free.
1-1914.	**Rolled Sections for Structural Purposes,** Lists of	1/-	1/2
2-1903.	**Tramway Rails and Fish-plates,** Specification and Sections of	1/-	1/3
3-1903.	**Influence of Gauge Length and Section of Test Bar on the Percentage of Elongation,** Report on, by Professor W. C. UNWIN, F.R.S.	1/-	1/2
6-1904.	**Rolled Sections for Structural Purposes,** Properties of ...	1/-	1/3
7-1910.	**Copper Conductors,** Tables of	1/-	1/2
8-1904.	**Tramway Poles,** Specification for Tubular	1/-	1/2
9-1909.	**Railway Rails,** Specification and Sections of Bull Head	1/-	1/3
10-1904.	**Pipe Flanges,** Tables of ...	1/-	1/2
11-1909.	**Railway Rails,** Specification and Sections of Flat Bottom ...	1/-	1/4
12-1915.	**Portland Cement,** Specification for...	1/-	1/2
13-1910.	**Steel for Shipbuilding,** Specification for Structural... ...	1/-	1/2
14-1907.	**Steel for Marine Boilers,** Specification for Structural	1/-	1/2
15-1912.	**Steel for Bridges,** etc., and General **Building Construction,** Specification for Structural	1/-	1/2
16-1905.	**Telegraph Material,** Specification for	1/-	1/3
18-1910.	**Tensile Test Pieces,** Forms of	Gratis	-/2
19-1905.	**Temperature Experiments on Field Coils** of Electrical Machines, Report on	1/-	1/3
21-1909.	**Pipe Threads for Iron or** Steel Pipes and Tubes, Report on ...	1/-	1/2
23-1905.	**Trolley Groove and Wire,** Standards for	1/-	1/2
24-1911.	**Railway Rolling Stock,** Specifications for **Material** used in the Construction of—		
	Part I. Locomotive, Carriage and Wagon Axles	1/-	1/2
	,, II. Locomotive, Carriage and Wagon Tyres	1/-	1/2
24-Part III.	Laminated, Volute and Helical Springs and Steel for Laminated Springs ...	1/-	1/2
	,, IV. Steel Forgings, Blooms and Castings	1/-	1/2
	,, V. Copper Plates, Rods and Tubes and Brass Tubes...	1/-	1/2
	,, VI. Steel Plates, Angles, etc., and Rivets for Locomotives, Carriages and Wagons	1/-	1/2
27-1906.	**Limit Gauges for Running Fits,** Report on Standard Systems of	1/-	1/2
28-1908.	**Nuts, Bolt Heads and Spanners,** Report on	1/-	1/2
29-1909.	**Steel Forgings for Marine Purposes,** Specification for Ingot ...	1/-	1/2
30-1907.	**Steel Castings for Marine Purposes,** Specification for ...	1/-	1/2
31-1910.	**Steel Conduits for Electrical Wiring,** Specification for ...	1/-	1/2
32-1907.	**Steel Bars** for use in **Automatic Machines,** Specification for	1/-	1/2
33-1906.	**Carbon Filament Glow Lamps,** Specification for	1/-	1/2
35-1907.	**Copper Alloy Bars** for use in **Automatic Machines,** Specification for	1/-	1/2
37-1919.	**Electricity Meters,** Specification for	1/-	1/2
40-1908.	**Cast Iron Low Pressure Heating Pipes,** Specification for Spigot and Socket	1/-	1/2
41-1908.	**Cast Iron Flue or Smoke Pipes,** Specification for Spigot and Socket	1/-	1/2
42-1909.	**Steam Engines for Electrical Purposes,** Report on Reciprocating	1/-	1/2
43-1909.	**Boiler Tubes,** Specification for Charcoal **Iron** Lap-welded ...	1/-	1/2
44-1909.	**Cast Iron Pipes for Hydraulic Power,** Specification for ...	1/-	1/2
45-1917.	**Sparking Plugs** (for Internal Combustion Engines), Report on Dimensions for	1/-	1/2
46-1909.	**Keys and Keyways,** Specification for	1/-	1/2

Report No.		Net.	Post free.
47-1914.	**Steel Fishplates** for Bull Head and Flat Bottom Railway Rails, Specification and Sections of ...	1/-	1/3
48-1909.	**Wrought Iron** of Smithing Quality for Shipbuilding (Grade D), Specification for	1/-	1/2
49-1909.	**Ammeters and Voltmeters,** Specification for	1/-	1/2
50-1910.	**Locomotives for Indian Railways,** Third Report on (Superseding Nos. 5 and 26)	Under Revision.	
51-1913.	**Wrought Iron** for use in Railway Rolling Stock ("Best-Yorkshire" and Grades A, B and C), Specification for	1/-	1/2
53-1913.	**Boiler Tubes** for Locomotive Boilers, Specification for Cold Drawn Weldless **Steel**...	1/-	1/2
54-1911.	**Screw Threads, Nuts and Bolt Heads** for use in **Automobile** Construction, Report on	1/-	1/2
55-1911.	**Copper and Bronze Wire,** Report on Hard Drawn	1/-	1/3
56-1911.	**Yield Point** and **Elastic Limit,** Definitions of	Gratis.	-/2
57-1911.	**Small Screws,** Report on Heads for	1/-	1/2
58-1912.	**Cast Iron Soil Pipes,** Specification for Spigot and Socket ...	1/-	1/2
59-1912.	**Cast Iron Waste and Ventilating Pipes** (for other than Soil Purposes), Specification for Spigot and Socket	1/-	1/2
61-1913.	**Copper Tubes** and their **Screw Threads** (primarily for domestic and similar work), Specification for	1/-	1/2
62-1913.	**Marine Boiler Stays, Screwing** for	Gratis.	-/2
63-1913.	**Broken Stone and Chippings,** Specification for Sizes of ...	1/-	1/2
64-1913.	**Fishbolts and Nuts** for Railway Rails, Specification for ...	1/-	1/2
65-1914.	**Salt-Glazed Ware Pipes,** Specification for...	1/-	1/2
66-1914.	**Copper-Alloy Three-Piece Unions** (for Low and Medium Pressure Screwed Copper Tubes), Specification for	1/-	1/2
67-1914.	**Ceiling Roses,** Specification for Two- and Three-Plate	1/-	1/2
68-1914.	**Steel Conductor Rails,** Method of Specifying the **Resistance** of	1/-	1/2
69-1915.	**Tungsten Filament Glow Lamps** (Vacuum Type) for **Automobiles,** Report on	1/-	1/2
70-1915.	**Pneumatic Tyre Rims** for Automobiles, Motor Cycles and Cycles, Report on	1/-	1/2
71-1917.	**Wheel Rims and Tyre Bands for Solid Rubber Tyres** for **Automobiles,** Report on Dimensions of	1/-	1/2
72-1917.	**Electrical Machinery,** British Standardisation Rules for ...	1/-	1/2
73-1915.	**Wall Plugs and Sockets,** Specification for...	1/-	1/2
74-1917.	**Charging Plug and Socket,** for Vehicles Propelled by Electric Secondary Batteries, Specification for	1/-	1/2
75-1916.	**Steels for Automobiles,** Specification for **Wrought**	1/-	1/2
76-1916.	**Tars, Pitches, Bitumens** and **Asphalts** when used for Road Purposes, Report on **Nomenclature** of and Specifications for Tar and **Pitch** for Road Purposes	1/-	1/2
77-1916.	**Electrical Pressures** for **New Systems** and **Installations** (Low and Medium Pressures) ...	Gratis	-/2
78-1917.	**Cast Iron Pipes** and Special Castings for **Water, Gas** and **Sewage,** Specification for	1/-	1/2
80-1917.	**Magnetos for Automobile Purposes,** Report on Dimensions of	1/-	1/2
82-1919.	**Starters for Electric Motors** (Face Plate Type), Specification for	1/-	1/2
83-April, 1918.	**Dope** and **Protective Covering** for **Aircraft,** Standard of Reference for	1/-	1/2
84-1918.	**Screw Threads (British Standard Fine), B.S.F.,** and their **Tolerances,** Report on	1/-	1/2
85-April, 1918.	**Steel for Aircraft** for **Government Purchases** in the United States of America, Specifications for	Under Revision.	
86-1919.	**Magnetos for Aircraft Purposes,** Report on Dimensions of	1/-	1/2
87-1919.	**Airscrew Hubs,** Report on Dimensions for	1/-	1/2
88-1919.	**Electric Cut-Outs** (Low Pressure, Type O), Specification for	1/-	1/2

INTERIM REPORTS.

C.L. 2582.	**Ball Journal Bearings for Automobiles,** Interim Report on Sizes of Single Row...	Gratis	-/2
C.L. 3750.	**French Metric Screw Threads** for **Aircraft** Purposes, Interim Report on	-/6	-/8

Printed by
Waterlow & Sons Limited, 49, Parliament Street,
Westminster, S.W.1.